Tips for Better Digital Microscopy

1. Conventional vs. Digital Microscopy: Remember that a conventional microscope is really a magnifying glass. Digital microscopy makes the simple, conventional microscope a real- time learning tool.

2. Digital Microscopy is achieved by using a Swift Digital Microscope with a built- in digital camera, or by attaching a Moticam camera to an existing Swift microscope or other brand by using the adapter rings included in the Moticam package. Both options include powerful application software by which the images can be stored, evaluated, and quantified.

3. Resolution is important to digital microscopy. Live image resolution is most important in digital microscopy. This may be different than what is used in digital photography. When you are using a microscope as a teaching tool, you need to see exactly what is happening under your microscope. Live image resolution is the part that allows you to see a smooth curved cell wall without pixelation. It is important to choose the right image chip that will give you the right live image resolution. The more pixels, the better resolution becomes.

4. In digital microscopy, color is a matter of different interpretations beginning with the chip in the camera, displayed by the monitor or LCD screen and translated to the human eye. The imaging chip that "sees" your specimen will interpret the color according to its own sensitivity. When the image is displayed on your monitor, it is again interpreted by the phosphors in a CRT monitor or by the color filter in your LCD screen. The image is then perceived by your eye and is actually a combination of red, blue, green, hue and saturation. To create a digital image as close in color perception as possible to what you see through the eyepiece of the microscope involves a great deal of manipulation. The software included with Swift digital products allows the user to perform these manipulations by using the adjustments on the control panel.

5. When attaching a Moticam to the microscope by use of an adapter ring, make certain that the ring sits flush with the eyepiece. This eliminates the effect of a vignetting or a fuzzy, black ring around the edge of the image you are viewing.

6. If you have difficulty getting an image to display, make sure to plug your camera into the USB port before turning on your PC or laptop. Keep your laptop plugged into an outlet. If you run your laptop off the battery, it drains the power from the USB ports first and your camera may not have enough power to work. Also, other USB devices may interfere with the camera such as a wireless mouse.

7. A Help Guide is available on the CD that is included with your Swift digital product. This includes instructions for installing the software, driver installation, calibration, capturing still images, capturing video clips, taking measurements and customizing your settings. Additional assistance is available at our helpline: (877) 967-9438.

Moticams available through National Optical. Visit www.nationaloptical.com for more information.

For more information, Please call (877) 967-9438

www.swiftoptical.com